

SCIENCE & EDUCATION Impact

Benefits from USDA/Land-Grant Partnership

Better Foods for Better Health

Eating right can prevent diseases, lead to a healthier America.

Low-income families spend proportionately more of their income on food than families with higher incomes. The Land-Grant university and USDA partnership reaches these families with information on how to best stretch their food dollar. Americans benefit from research that makes food healthier — through improved preparation techniques, advances in crop breeding and feeding techniques on the farm.

Payoff

- **EFNEP's impact.** While improving their nutritional practices, EFNEP families can reduce their reliance on emergency food assistance and save money for other necessities. Researchers at **Virginia Tech** and **Iowa State** estimate that every \$1 invested in EFNEP yields more than \$10 in benefits from reduced health-care costs. **Tennessee** research shows that for every dollar spent to implement EFNEP, \$2.48 is saved on food expenditures.
- **International nutrition.** Not every culture gets nutrients in the same way. While Caucasians reach for milk, Hispanics get more calcium from cheese and beans and Asians from seaweed and soy. Land-Grant universities are incorporating cultural differences as they address nutritional needs. **California** conducts EFNEP (Expanded Food and Nutrition Education Program) education for low-income Vietnamese families in five counties. Extension educators in **Colorado** conduct a bilingual program called “La Cocina Saludable” (The Healthy Kitchen) to provide Hispanic grandmothers with nutritional information. Of those surveyed, 78 percent made positive nutritional changes as a result of the program. Another **California** Extension program, called “Cooking for Better Health,” helps low-income Hispanic families improve dietary practices. Graduates ate fewer fried foods, drank lower-fat milk and bought lower-fat foods. **Connecticut** reached 10,000 low-income Latino children and their caretakers through PANA (Programa para Aprender Nutricion y Alimentacion) with bilingual nutrition education on the importance of eating fresh produce. Salud!, a nutrition marketing campaign, features Latino celebrities who “toast”

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good health by promoting fresh fruits and vegetables. It reached more than 50,000 children at a cost of only \$1.60 per child in 2000.

- **Making good food better.** African-Americans are more likely to die from nutrition-related diseases — cancer, strokes and heart and kidney diseases — than other ethnic groups. A **Kentucky State** program analyzed traditional African-American recipes and modified them to reduce saturated fat, cholesterol and sugar and to increase fiber. Taste panels with 79 African-American volunteers evaluated the recipes. The study showed that people who adopt the recipe modifications will consume 5,000 fewer calories, 500 grams less fat, 200 grams less saturated fat, 5,000 milligrams less cholesterol and 65 additional grams of dietary fiber each month.
- **Feeding the hungry.** Even people in prosperous America are going hungry. In 1999, about 31 million people, including more than 10 million children, lived in households that suffered either hunger or food insecurity. The Expanded Food and Nutrition Education Program (EFNEP) offered by Land-Grant universities nationwide provides intensive nutrition education to families and individuals with limited resources. The knowledge and skills they gain lead to improved food safety practices and help them stretch their food dollars. Graduates of **Utah State's** nutrition program are saving \$31 on monthly grocery bills. **New Mexico State's** program reaches 3,000 families annually with 80 percent of the adult program graduates improving their nutritional and food management practices.
- **Fighting cancer with the right foods.** Cows that eat fish oil as part of their feed produce milk with higher concentrations of conjugated linoleic acid, a compound shown to help prevent cancer. **Kentucky** research shows that butter, yogurt and ice cream produced from this milk also contain healthful compounds and that consumers like the taste. **South Dakota State** has a patent pending on a dairy cow feeding process that increases both conjugated linoleic acid and transvaccenic acid, also known to prevent cancer. In cooperation with **Minnesota** researchers, South Dakota scientists fed butter with the compounds to rats. The incidence of cancer dropped 50 percent

among the lab animals. At **Ohio State**, medical, horticultural and food science researchers are collaborating on an effort with ellagic acid, a compound in raspberries that also prevents certain types of cancer. In **Missouri**, efforts are under way to develop a corn hybrid that will synthesize genistein, an isoflavone in soybeans that protects against breast, prostate and colon cancers. **Illinois** also is studying the link between genistein in soybeans and breast cancer prevention.

- **Dinner plate disease prevention.** Omega eggs — produced through a patented feeding system developed at **Nebraska** — are lower in cholesterol and contain more than nine times the omega-3 fatty acids as regular eggs. These beneficial fatty acids reduce heart disease by increasing the ratio of good to bad cholesterol and reducing the occurrence of blood clots. Nebraska research shows that eating up to two Omega eggs can reduce blood serum triglycerides by 14 percent. The eggs have hit Midwest supermarkets in seven states.
- **Are herbal supplements really good for you?** Americans spent more than \$5 billion on herbal supplements in 1997 and by 2010 are expected to dole out \$25 billion. A survey by **Ohio State** researchers showed that 40 percent of respondents in seven Ohio counties took the supplements. They were more likely to obtain information from friends, stores, news accounts and advertisements than from doctors, pharmacists or dietitians. As a result of the survey, researchers developed 11 extension fact sheets to increase consumer savvy; more than 1,000 copies were downloaded from a Web site in just two months.



**Cooperative State Research, Education,
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